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THE UNDER SECRETARY OF THE TREASURY
FOR MONETARY AFFAIRS
WASHINGTON, D.C. 20220

MEMORANDUM FOR THE CABINET COUNCIL ON ECONOMIC AFFAIRS

From: Beryl W. Sprinkel

Subject: Monetary Policy Options and Risks

Implementation of the long-term policies of reducing inflation and increasing the productive capacity of the economy are now complicated by the urgency of nurturing the current recovery. The apparent classic policy conflict between short and long-run considerations has arisen again, presenting the Administration with significant political problems and substantial economic risks.

The dangers are particularly acute in the area of monetary policy, where monetary decisions that are made now will have a major impact on the economic conditions and policy options facing the Administration in 1984. Without great care in the formulation and conduct of monetary policy, there are dangers of aborting the economic recovery, losing the gains that have been made in reducing inflation, or both.

There is no apparent disagreement, in general, between the Administration and the Federal Reserve on the appropriate monetary policy goals for this year -- to accommodate the economic recovery, while maintaining a moderate trend of money growth to reduce inflationary pressures further. The issue is how this policy is to be implemented. There are two basic approaches, each of which offers its own profile of risks.

The General Situation

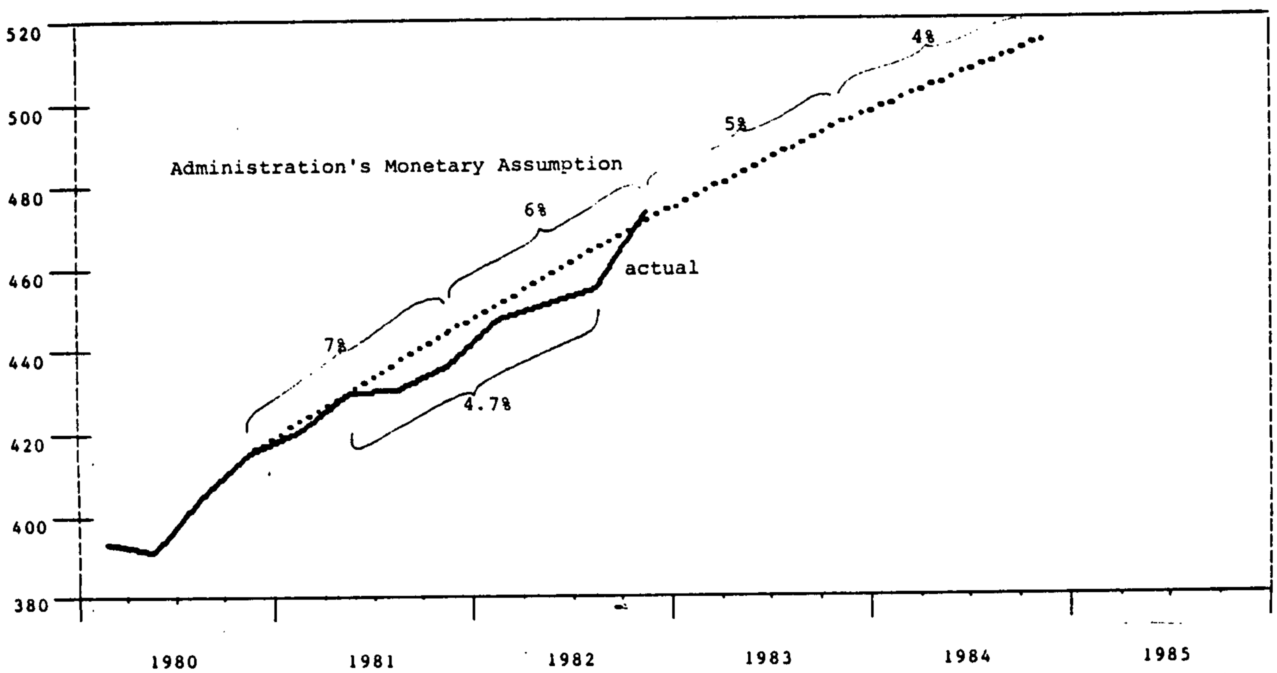
In 1981 money growth was abruptly and significantly reduced relative to its previous growth path and was two percentage points below the path that the Administration had assumed in formulating the economic recovery program. This restraint continued through July of last year, maintaining the level of M1 far below the growth path originally recommended by the Administration. The severe and prolonged monetary restriction contributed to the onset, severity and duration of the recession.

On the positive side, the monetary surge since last July can be viewed as an abrupt and belated adjustment for this prolonged undershooting. The rapid pace of money growth in recent months has, in fact, brought the fourth-quarter 1982 average of M1 to the level that was implied by the Administration's original recommendations for prudent anti-inflationary monetary policy.

Actual Money Growth (M1)

versus

Administration's Assumed Path (Feb. 1981)



In addition, money growth has been extremely volatile in the last two years; brief periods of excessive money growth have been sandwiched between long periods of near-zero growth. Thus, the financial markets have been repeatedly subjected to long periods of restricted liquidity, followed by periods of exceptionally rapid money growth. The resulting disruption of financial markets, compounded by the increasing uncertainty surrounding the budget process, helped maintain long-term inflationary expectations, delayed the decline in interest rates, and thereby prolonged and strengthened the restriction of output and employment associated with the deceleration of money growth.

	Annual Rates of Change of M1
April - October 1981	-0.2%
October 1981 - January 1982	15.3
January - July 1982	1.2
July - December 1982	15.1

The Federal Reserve has justified the most recent surge in money growth as being the result of financial innovations, such as money market deposit accounts, and super-NOW accounts. While these innovations have caused short-term aberrations in the money supply data, there is no evidence that the Federal Reserve's ability to control money growth has been hampered or that the fundamental relation between money and income growth (velocity) that can be expected over the future has been altered.

The Monetary Policy Problem

The immediate contribution that monetary policy can make to a sustainable economic expansion is to facilitate continued downward adjustment of price expectations, to allow the entire structure of interest rates to fall. Downward adjustment of long-term price expectations over the course of this year is necessary to assure a meaningful and lasting decrease in the cost of credit. Holding short-term interest rates down by continuing to provide more reserves to the banking system, however, is not likely to produce the desired downward pressures on longer term interest rates.

The adjustment of price expectations requires preannounced, stable, and predictable actions that minimize the uncertainty that surrounds the prospects for longer term monetary control. In the current environment, with the budget process generating so much uncertainty about the out-years, the importance of establishing a predictable monetary policy becomes even more crucial.

The key is the sensitivity of longer term expectations to current monetary announcements and actions. While monetary stimulus would probably provide a boost to real economic activity, the impact would be smaller and shorter-lived if longer term expectations or fears of inflation are aggravated. As has been illustrated often in recent years, interest rates and money growth move in the same direction when market expectations and uncertainty about inflation are sensitive to increases in the money supply. If the financial markets become concerned about the longer term inflationary implications of rapid increases in the money supply and long-term interest rates begin to rise, the stimulative effects of increased money growth would be choked off.

The troublesome policy problem is that the current rapid money expansion will eventually have to be slowed. No one in the Federal Reserve or the financial markets believes that 15% money growth can be continued indefinitely without creating an economic disaster. The issues are when the money growth is brought down, and at what pace. There are risks on both sides: either, (1) the Federal Reserve would allow the monetary expansion to continue too long, reigniting inflationary expectations, driving long-term interest rates back up, and preventing a sustained recovery; or (2) the monetary expansion would be abruptly curtailed, restraining output and employment growth as it did in 1981-82. It is dangerous to presume that everything will simply work out for the best and that the transition to moderate, stable money growth in 1983 will avoid these pitfalls. Immediate explicit action is required to begin a smooth transition to a moderate, predictable monetary expansion.

The immediate task is to take action that reduces the probability that the Federal Reserve would be faced in several months with the unpleasant choice between continuing to generate excessive money growth and abruptly slowing it. Despite the obvious importance of encouraging an economic expansion, this policy dilemma could easily and quickly arise if the Federal Reserve continues to generate rapid growth in bank reserves in an effort to provide stimulus at this time, while expecting to re-establish moderate money growth later. Such monetary fine-tuning has rarely, if ever, been accomplished in recent years.

The Monetary Policy Options

Option 1: Immediate effort to remove the bulge in money growth which has occurred since July. Not only is this not a reasonable alternative, such monetary actions must be avoided. A prolonged period of very slow money growth would certainly abort the recovery and effectively destroy our chances of achieving growth in production and employment over 1983 and 1984.

This option is mentioned only because abrupt and prolonged periods of monetary restraint have followed the prior episodes of rapid money growth. Whatever the cause of the prior experience, such monetary restraint must now be avoided.

Option 2: Attempt to hold down short-term interest rates by allowing bank reserves, and thus money growth, to continue uncontrolled temporarily. This has been the typical monetary posture during the early stages of economic recovery during the entire postwar period; excessive rates of money growth would be generated as the monetary authority attempted to hold down short-term interest rates as the economy entered a recovery phase.

Expanding economic activity would be expected to increase the demand for credit. Attempting to keep short-term interest rates from rising causes an increase in bank reserves and the stock of money. In other words, credit demands would be accommodated through monetary expansion. Coincidentally, economic activity would be stimulated. The key, however, is the reaction of longer term price expectations and, therefore, of long-term interest rates, to continuing rapid money growth.

This strategy worked well in the recovery of 1975-1976, as short and long-term interest rates were allowed to rise a bit during the early stages of recovery. The increase in interest rates was both moderate and very short-lived, and the entire spectrum of rates then fell for almost two years. The economy expanded at a 6.7% rate during the first year of the recovery, showing rapid growth even during the brief period when interest rates were rising. Money growth surged to a 7% rate of growth in the first two quarters of the expansion, but then was held to a 5% increase over the next year. Inflation slowed considerably.

On the other hand, this strategy was much less successful following the recession of 1969-70. In that instance, the monetary acceleration was associated with steady increases in long-term interest rates and further pressure on inflation. In August 1971, the price control program was put into place.

This option increases the likelihood of a more robust economic expansion in the early stages. The risk is to the sustainability of that recovery, and the key element is the reaction of longer term price expectations to the pace of money growth. The probability that price expectations will move adversely rises, the longer monetary policy is focused on countering upward pressures on short-term interest rates because that policy tends to stimulate money growth. As rising private credit demand puts more upward pressure on interest rates, more and more monetary stimulus would be required to hold down short-term rates.

Time may be running out on this strategy in any case since money growth, especially M1, has already been running high for some months. Pursuing this strategy any further could produce a very unpleasant policy setting for 1984 if money growth does not in fact reverse of its own accord.

<u>Option 3</u>: <u>Prompt actions by the Federal Reserve to restrain the growth of bank reserves so that money growth will be curtailed and brought back within the target ranges.</u>

The markets <u>might</u> be reassured if the Federal Reserve would announce money growth targets for the year, while explaining that money will be brought down gradually to the target range. This approach was adopted early in 1982, when the monetary aggregates were also above the target ranges at the beginning of the year.

This policy should have its major restrictive impact on short-term interest rates and serve largely to insulate long-term interest rates from the effects of month-by-month monetary policy. Under this option, there is no need to wash out the late 1982 bulge in the money stock but only to adhere to moderate growth targets in 1983.

In comparison to Option 2, this alternative is more likely to cause an immediate temporary increase in short rates; the trade-off is that there would be greater assurance that policy problems would not accumulate to the point where relatively large increases in long rates are inevitable. A clearly enunciated strategy of adhering to monetary targets should help to stabilize the bond market.

The more vague adherence to targets in Option 2 might provide somewhat greater freedom of action in the short run and the higher money growth would provide a greater, but temporary, stimulus to economic activity. The risk, however, is a greater probability of aggravating inflationary expectations and uncertainty, and causing long-term rates to rise; the sustainability of the recovery is thereby jeopardized. Option 3 reduces the danger of arousing fears of future inflation, but at the cost of some immediate, temporary increases in short-term interest rates.

Summary

The risk of an accommodative monetary expansion early in 1983 is not an immediate resurgence of inflation. It is unlikely that excessive money growth would have an appreciable effect on the price indices for more than a year. Instead, the danger comes from the potential impact on expectations about the longer term prospects for inflation. These expectations, which are already sensitized by the projected budget deficits, are the major factors that have held up long-term interest rates even as the actual rate of inflation has declined.

Rapid money growth that results from efforts to maintain or further reduce short-term rates of interest could well cause longer term rates to rise, reducing the sustainability of the economic expansion. Such a shift in the structure of interest rates would be one signal that monetary stimulus had gone too far. At that point, the monetary choice is unpleasant -- continue the rapid rate of monetary expansion in an attempt to counter the restrictive effect of rising longer term interest rates, or slowing the rate of money growth abruptly to choke off the expectations.

A predictable, long-run policy that is adhered to with reasonable consistency in the short-run can do much to reduce uncertainty and enhance stability. This is the premise of preannounced money growth targets; properly implemented, they transmit to the financial markets and investment planners important information about the central bank's intentions and future inflation.

EXECUTIVE OFFICE OF THE PRESIDENT

COUNCIL OF ECONOMIC ADVISERS

WASHINGTON, D.C. 20500

February 3, 1983

MEMORANDUM FOR THE CABINET COUNCIL ON ECONOMIC AFFAIRS

FROM: WILLIAM POOLE W.P.

SUBJECT: MARKET EXPECTATIONS AND MONETARY POLICY IN 1983

Monetary policy in 1983 will be crucial to putting the economy on a recovery path consistent with consolidating and extending the 1982 gains in the battle against inflation. In the past monetary policy has typically gone off track in the first one or two years of recovery, ensuring that the recovery would not be long sustained due to an acceleration of inflation and growing imbalances in the recovery itself. Market participants are well aware of this historical regularity; a central problem for the Federal Reserve and the Administration in 1983 will be to ensure that an excessively expansionary monetary policy does not reçur and that market participants do not come to expect such a policy.

Current Market Expectations.

Available data support two conclusions about the current state of market expectations:

1. The market believes that the most likely outcome is for an expansionary monetary policy and rising interest rates.

2. Market expectations concerning the most likely outcome are weakly held and subject to substantial alteration through Federal Reserve and Administration policy.

Several pieces of evidence suggest that the market's best guess as to the outcome for monetary policy in 1983 is a repetition of the usual pattern of rising money growth during the expansion phase of the business cycle. (See the attached chart for a picture of money growth experience since 1970.) Recent quotes in the financial futures market are reported in the attached Table. The market anticipates rising yields on both Treasury bills and Treasury bonds; bill yields are expected to rise about 170 basis points from now to late 1984, and bond yields by about 40 basis points. Since these markets reflect large commitments of hard cold cash, the rising futures yields should be taken seriously.

The Blue Chip Financial Forecast provides survey information at variance with the financial futures market. In the survey dated January 1, 1983, the median forecast is for an essentially flat Treasury bill rate -- 7.90 percent in 1984:IV (compared to 8.10 percent on January 31). The Blue Chip respondents also forecast a gently falling Treasury bond rate -- to 10.15 percent in 1984:IV. (The yield on 30-year Treasury bonds was 10.98 percent on January 31). Little comfort should be taken from this survey information given the bets actually being placed in the futures market. Interest rate forecasts are better exposed by examining what market participants do than by what they say.

The Blue Chip survey is useful, however, in providing information about the diversity of views in the marketplace. Of the 36 respondents, ten forecast a bill rate of 8.7 percent or above and ten a bill rate of 7.3 percent or below for 1984:I. Last July the Federal Reserve announced a tentative 1983 target range for M2 growth of 6 - 9 percent. In comparison, of 34 Blue Chip respondents providing money growth forecasts for 1984:I, ten believed that M2 growth would be at a rate of 9.4 percent or higher and ten felt that M2 growth would be 8.0 percent or lower. This diversity of views about the variable the Federal Reserve has said will be its primary monetary target is striking. Unfortunately, this uncertainty about monetary policy is not unusual.

A reading of market commentary also indicates that there is a great diversity of views about monetary policy. Some analysts believe that "monetarism is dead" and that the Federal Reserve will openly abandon monetary targets some time before the 1984 elections. Others believe that the Federal Reserve has invested too much to abandon monetary targeting, especially considering the lack of a superior alternative.

Few market participants seem to find the Fed's explanations for recent high M1 growth -- All Savers Certificates, extra liquidity demands, etc. -- convincing. They are well aware of the record of Fed explanations for unusually high or low money growth. (See the Appendix attached to this memorandum.) To be blunt, most market participants simply don't believe the Fed's arguments that special factors explain money growth in the second half of 1982.

While few market participants believe the Fed's official explanations, most believe that last summer the Fed decided quite consciously to place far greater emphasis on driving interest rates down than on adhering to money growth targets. Market participants with a monetarist bent see the trouble ahead from the reduced emphasis on monetary targeting. Conversely, many non-monetarists are pleased that the Fed has found a way to relax what they believe was a destructively rigid policy.

Whatever may be the correct monetary policy, we should be concerned that so few analysts find the official explanations offered for recent high M1 growth convincing. Repetition of weak explanations does not promote confidence. There is a pervasive air of uncertainty about monetary policy caused by distrust of the Fed's explanations and by the difficulty of specifying a longer-run policy in terms of interest rates.

In my opinion, the markets in 1983 will behave as if monetarism is alive and well. There are three reasons for this judgment. First, there are many in the markets who continue to believe the monetarist message. Second, there are others who may express misgivings about monetarism, but who will nevertheless be very nervous about the prospect of rising interest rates if money growth runs high for a sustained period of time. These investors remember vividly the losses suffered by bondholders in the late 1970s and they will not want to risk taking such a bath again. Third, there are those who, whatever their own views, believe that the Federal Reserve will continue to pay substantial attention to monetary targets and who anticipate, therefore, that the Fed will at some point permit interest rates to rise if money growth remains high, and interest rates to fall if money growth falls.

From my reading of market commentary and my contact with market participants it is my conclusion that market sentiment has already turned distinctly cautious. The market is extremely uncertain about the future course of monetary policy. A piece of bad news, though relatively insignificant in and of itself, could easily produce a major sell-off in the long bond market. Long bond yields have already increased substantially from their lows -- from an average of 10.46 percent for the week ending November 13 to an average of 10.87 percent for the week ending January 19 (30-year Treasuries). The only way to bring long rates down is to promote confidence in the long-run stability of the monetary environment.

Interest Rate Risks

Short-term interest rates are inherently volatile, and in recent years they have been especially so. Nothing has happened to change this situation. Thus, it is all but certain that sometime during 1983 short rates will rise enough to "hurt". The rise might occur after rates have declined substantially from today's levels, and might not take rates above those levels. Or, the rise might start soon and reverse some of 1982's declines. There is no way to know.

What is clear is that speculation on monetary and fiscal policy is an important factor in interest rate volatility. Little can be done that is not already being done to reduce uncertainties over fiscal policy. However, opportunities to reduce monetary uncertainties are much greater.

Central to reducing uncertainties over monetary policy is Federal Reserve and Administration recognition that the Fed cannot continue much longer with its present policy. Data indicating that the recovery is finally and firmly in hand may foreclose any immediate prospect of interest rates resuming their declining trend; the overriding reason for the Fed to permit unusually high money growth -- the recession -- will then be gone. The market may then become very concerned about the inflationary risk to overdoing monetary stimulus.

In my opinion, the Administration and the Fed together should think through this problem. What is the Fed going to do and what is the Administration going to say if and when interest rates come under upward pressure in an environment of economic recovery and continuing high money growth? What will be the effect on the markets if some members of the Administration are saying that Fed policy is about right while others are expressing concern about high money growth? What will be the effect if we have a unified position supporting Fed efforts to hold down interest rates by permitting continuing high money growth? Or, conversely, what will be the effect on the markets if we have a unified position in support of a Fed policy to permit interest rates increases in order to control money growth? Of course, there is no certainty that we will have to face such unpleasant questions, but current quotes in the financial futures markets and past experience suggest that the odds are high that we will.

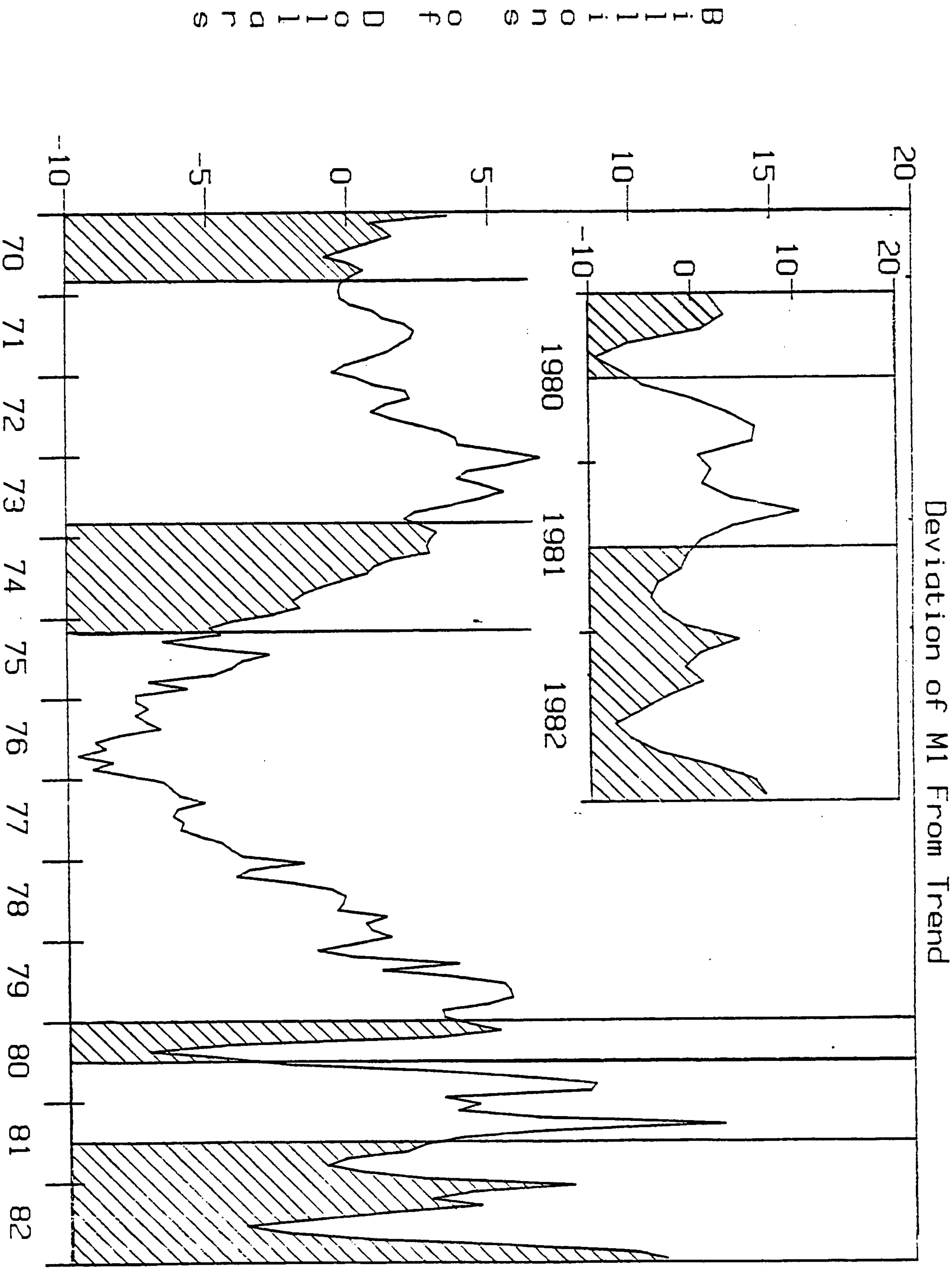
In thinking through these issues two considerations should be addressed. First, today's monetary policy will condition market expectations in the future and thereby affect the market's response when the all but inevitable period of upward pressure on interest rates arrives. Thus, it is important to think about current monetary policy in a longer-run context. To the maximum possible extent, monetary policy should lead rather than follow the market in order to define a policy with as much clarity as possible. Second, contingency planning for a possible period of rising rates is necessary to avoid a confused response that will only make matters worse. If we are not to be taken by surprise, we should be quite clear about the contingencies and the available options for dealing with them.

Market Expectations and Monetary Policy in 1983

Financial Futures Markets

Closing Yields February 1, 1983

Contract Maturity Date	Treasury Bills	Treasury Bonds
March 1983	8.28	11.408
June 1983	8.61	11.522
September 1983	8.86	11.611
December 1983	9.09	11.674
March 1984	9.30	11.722
June 1984	9.52	11.760
September 1984	9.70	11.792
December 1984	9.85	11.819


Deviation of M1 From Trend
Billions of Dollars
20
15
10
5
0
-5
-10
20
10
0
-10
1980
1981
1982
70
71
72
73
74
75
76
77
78
79
80
81
82

Appendix

Adrian Throop of the CEA staff has reviewed all Federal Reserve congressional testimony reprinted in the Federal Reserve Bulletin since 1970 in order to construct a comprehensive record of Federal Reserve statements concerning explanations for periods of unusually high or low money growth. This appendix contains relevant quotations indicating contemporary Federal Reserve interpretations of monetary developments over the past twelve years.

In reading the quotations it may be useful from time to time to refer to the chart showing the money stock relative to its 1970-82 trend. From the chart it is clear that there has been a systematic tendency for the money stock to rise relative to trend during business cycle expansions, including periods of rising inflation, and to fall relative to trend during business cycle contractions. This regularity should be kept in mind when reviewing explanations for temporary changes in money growth.

Quotations from Federal Reserve Testimony

Chairman Burns before the Joint Economic Committee, July 23, 1970

We know that large, erratic and unpredictable short-run changes often occur in demands for money and bank credit.

Chairman Burns before the Joint Economic Committee, February 19, 1971

However, when the economy is sluggish, and when very unusual demands for liquidity are encountered, as they were in 1970, a rate of monetary expansion above the historical average is not inappropriate.

Chairman Burns before the Joint Economic Committee, February 9, 1972

These variations [in money growth] reflected the public's changing demand for cash balances, which is related not only to the need to finance current expenditures but also the desire to hold money for precautionary reasons.

Chairman Burns before the Joint Economic Committee, August 3, 1973

In the first quarter of this year, growth of the narrowly defined money supply -- that is, currency in circulation plus demand deposits -- slowed abruptly. At the time it appeared that transitory factors were reducing the public's demand for money but that a substantial bulge in the money stock would probably soon develop.

Chairman Burns before the House Banking Committee, July 30, 1974

From one month to the next, the public's demand for money is subject to variations that are usually of a short-run nature. For example, a large tax refund, a retroactive increase in social security benefit payments, a sizable disbursement by the Treasury of revenue sharing funds may produce a temporary bulge in the demand for cash balances.

Chairman Burns before the Senate Banking Committee, May 1, 1975

The public's demands for currency, for checking deposits, for savings deposits, and for a host of other liquid assets are constantly changing. Financial technology in our country has developed rapidly in the past 20-30 years.... Moreover, as yields vary, many individuals and business firms have become accustomed to shifting their liquid resources frequently among these [depository and money market] assets. The result is that no single concept of money now conveys adequately the spendable funds held by the public.

Chairman Burns before the Joint Economic Committee, July 29, 1975

Federal Reserve actions to increase the availability of reserves take time to work their way through the economic system. As a consequence, some of the effects of easier Federal Reserve policies during a recession may not register in M1, the narrowly defined money stock, until the demand for transactional balances begins to strengthen. That may well have been a factor in the huge bulge in the money supply during May and June of this year.

Chairman Burns before the Joint Economic Committee, February 19, 1976

In view of the rather rapid pace of economic expansion, the relative ease of financial markets, and the absence of any evidence of a developing shortage of money and credit, we have been inclined to view the recent sluggish rate of expansion in M1 as reflecting the influence of various factors that are reducing the amount of narrowly defined money needed to finance economic expansion.

Chairman Burns before the Senate Banking Committee May 3, 1976

When our longer run growth ranges for the monetary aggregates were announced a year ago, concern was expressed by some economists, as well as by some members of the Congress, that the rates of monetary growth we were seeking would prove inadequate to finance a good economic expansion. Interest rates would move up sharply, it was argued, as the demand for money and credit rose for increased aggregate spending, and shor

We at the Federal Reserve do not share this pessimistic view. We knew from a careful reading of history that the turnover of money balances tends to rise rapidly in early stages of an economic upswing. We also suspected that changes in financial practice might of themselves be acting strongly to reduce the amount of money needed to support economic expansion. And we never lost sight of the danger that excessive expansion in money and credit could re-ignite the fires of inflation and plunge the economy into even deeper trouble.

Chairman Burns before the House Banking Committee, February 3, 1977

There was an unusually wide gap during the past year between the growth rates of M1 and the broader monetary aggregates. This stemmed in large measure from changes in financial markets that have served to reduce reliance on demand deposits for handling monetary transactions....

Elements of the innovational process currently underway in financial markets can be traced back as far as the 1950s.

Chairman Burns before the Senate Budget Committee, March 22, 1977

Large uncertainties always surround economic forecasts, and the relationships that exist between financial and real variables are complex and often loose. For these reasons we are very mindful at the Federal Reserve that constant reappraisal of the appropriateness of our monetary growth ranges is required. Should developments in the months ahead indicate that the ranges established for monetary expansion are inconsistent with the achievement of satisfactory performance of our economy, the FOMC would alter them -- either upward or downward, depending on what signals emerge.

Chairman Burns before the Senate Banking Committee May 3, 1977

In the case of the narrowly defined money supply, intensity of use has been increasing with special rapidity since 1975, reflecting numerous innovations in financial technology that serve to reduce reliance on demand deposits for handling monetary transactions.

Chairman Burns before the House Banking Committee, July 29, 1977

During the past half year, the Federal Reserve has managed to keep the growth of the major monetary aggregates on a moderate path. M1 -- which consists of currency and checking accounts at commercial banks -- increased at an annual rate of 6.4 percent. This is a faster rate of growth than occurred last year, and it reflects the very intense demand for transactions balances in recent months. Growth of the broader aggregates, on the other hand, has been slower than last year

-- a deceleration due partly to the low personal saving rate that has evolved and partly to some modest redirection of savings flows away from deposit accounts and into market securities as short term interest rates have risen.

...

... I must report, moreover, that despite the gradual reduction of projected growth ranges for the aggregates during the past 2 years, no meaningful reduction has as yet occurred in the actual growth rates. That unintended consequence is partly the result of data deficiencies that complicate the already formidable task of adjusting or approximating monetary growth objectives. Some of the data deficiencies we have experienced are being overcome. Even so, monetary measurement will continue to lack the precision of a science....

...

The relationship between monthly or even yearly rates of monetary expansion and the performance of the economy are subject to considerable uncertainty under the best of circumstances. In the current environment of rapid change in methods of carrying on financial transactions, that uncertainty is heightened.

Governor Partee before the House Banking Committee, September 27, 1977

... [T]he monetary aggregates -- particularly M1 -- have proved to be inherently unstable in the short run. Bulges of a month or two in duration are often reversed subsequently, as was the case in the spring and summer of 1975, and again in 1976. Prudence in our actions is dicated also by the fact that the relationship between the various measures of monetary growth and the performance of the economy is loose and unreliable, since it is subject to rather abrupt shifts as a result of changing financial practices and economic conditions.

In the current situation, for example, there are a number of ambiguities for which we do not yet have the answers. Until there is more information, it seems to me that one should be very cautious about prescribing a policy of stern monetary restraint.

First, the excessive growth of the narrow money supply this year has been concentrated in just two 1-month periods -- April and July. We do not have a good explanation for these bulges. It may be that they reflect in part a shift in the seasonal pattern of money demand....

Second, the abnormal expansion that has occurred over the past 6 months has been concentrated in the narrow money supply, while the growth in broader monetary measures -- though substantial -- has been much closer to our expectations. One reason for this development may be that the accelerated pace at which other forms of deposit and liquid asset instruments were being substituted for bank checking account balances has now slowed, at least temporarily. That would modify the meaning of the change in relative growth rates of the various monetary aggregates, in terms of probable impact on future economic performance, since it would simply reflect a shift in preference from one form of deposit to another.

Third, the behavior of the economy this spring and summer, though generally satisfactory, does not suggest that a major new boom is in the process of developing....

...Since sizable unused resources still exist in this and other economies, moreover, there is no immediate need to restrain excessive expansion, and there should be time to check any speculative surge in spending and investment that might develop.

Chairman Miller before the House Banking Committee, March 9, 1978

Knowing that a sustained, rapid monetary expansion would threaten a buildup over time of inflationary pressures, the Federal Reserve began in early spring [1977] to be less accommodative in its provision of reserves to the banking system. The adjustment of policy was a cautious one, in view of the possibility that the burst of monetary expansion that had developed might reflect simply a transitory swing in the public's demand for cash balances.

Chairman Miller before the House Banking Committee, April 25, 1978

For most of the current cyclical expansion, growth in M1 has been well within the ranges established by the Federal Reserve. Indeed, early in the expansion, growth was near the low end of the ranges. In part, this was the result of actions by the public to shift funds from demand deposits to interest bearing savings deposits and market instruments in response to financial innovations that made it easier to transfer funds in and out of savings deposits. In part, it seems to have reflected a lagged response to the unusually high level of interest rates reached during the 1973-74 inflation. And in part, it may also have reflected a return of confidence during economic recovery, which made the public more willing to spend out of existing cash balances and which thus reduced the need for the Federal Reserve to supply additional money to the economy.

By last year, the moderating impact on money growth of such factors has considerably lessened. Moreover, persisting upward cost and price pressures were making it difficult for the Federal Reserve to hold money growth within bounds while not risking undue interference with economic expansion. Finally, it is possible that the public earlier had reduced its cash balances to unsustainably low levels relative to income and that some part of the sizable expansion in money last year reflected a restoration of cash balances to normal levels.

Chairman Miller before the House Banking Committee, July 28, 1978

... Monetary policy has been -- and will continue to be -- designed to restrain inflation. But monetary policy cannot do the job alone. Placing too great a burden on monetary policy will entail dangers of severe financial dislocations that could have unfortunate long-run consequences for the domestic and international economies.

Chairman Miller before the Senate Banking Committee, November 16, 1978

It is the intention of the Federal Reserve to work toward a gradual deceleration of monetary and credit expansion to a pace consistent with price stability. The speed with which we can move in that direction without severely disrupting economic activity is limited by the degree to which inflation has become embedded in our economy. But some progress has been made in the past year. While M1 growth over the past four quarters -- at 8 percent -- was about the same as in the previous year, growth in M2 and M3 decelerated to rates of 8-1/4 and 9-1/4 percent respectively.... The actual growth in M1 over the past four quarters was well above the range of 4 to 6-1/2 percent set for this aggregate, but growth in the broader aggregates was well within the ranges. To have achieved significantly lower growth rates for the monetary aggregates than actually developed would have created substantially higher market rates of interest, and a sharper curtailment in credit supply, which in our judgment would have run an unacceptably high risk of wrenching financial markets so severely as to lead to an economic recession.

Growth in the monetary aggregates has to be evaluated in relation to basic economic and financial forces affecting the to public's preferences for money in various forms.

Chairman Volcker before the House Banking Committee, November 13, 1979

... [E]xperience shows that many forces can affect the financial requirements of the economy at any time. Other governmental policies, institutional changes, and exogenous shocks to the economy -- emanating from both domestic and foreign sources -- and changes in the public's money preferences can alter the relationship between money and economic performance.... Furthermore, even though we hope that our new operating procedures will bring some improvement, we must recognize that monetary control will always be imprecise. Recent events indicate quite clearly that even the problem of specifying precisely the monetary variable that should be controlled over a period of years is a very knotty one; what serves as money in our rapidly changing financial system is far from constant.

Governor Partee before the House Banking Committee, March 20, 1980

Our initial experience with the new operating procedures was very good in the fourth quarter -- i.e. October through December 1979. The demand for money moderated sharply, and the figures showed quite modest expansion in credit during the fourth quarter of the year.

But in January and February of this year, there was a shift. The demand for money and credit suddenly intensified, and we have had large increases in bank credit in January and again in February.

What it was exactly that caused the bulk of the change in the demand for credit, we do not know. It could have been the intensification in inflationary anticipations that you mentioned. It could have been the budget which was not well received in financial markets.

Chairman Volcker before the Senate Banking Committee, July 24, 1980

Coordinated with the announcement of the results of their broad government effort and the decision of the President to invoke the Credit Control Act of 1969, the Federal Reserve announced on March 14 a series of exceptional, temporary measures to restrain credit growth, reinforcing and supplementing our more traditional and basic instruments of policy.

The demand for money and credit dropped abruptly in subsequent weeks, reflecting the combined cumulative effects of the tightening of market conditions, the announcement of the new actions, and a sudden weakening of economic activity....

...

....In general terms, it seems clear that at least for a time, the demand for money subsided (much more than can be explained on the basis of established relationships to business activity and interest rates) apparently because consumers and others hastened debt repayment at the expense of cash balances and because the earlier interest rate peaks had induced individuals to draw down cash and place funds in investment outlets available in the market.

Chairman Volcker before the Senate Banking Committee January 7, 1981

In my judgment no single monetary measure should be emphasized to the exclusion of others, nor should undue weight be placed on short-term changes or deviations from targets, particularly when those deviations are not consistent from one measure to another. We know, not just in the United States but elsewhere, there can be a great deal of month-to-month, quarter-to-quarter volatility, especially in the narrow M1 measures. This is particularly true while economic conditions are rapidly changing.

Chairman Volcker before the Senate Banking Committee, February 25, 1981

Money supply fluctuations last year over periods of a quarter or so were probably larger than might have been expected on the basis of econometric analysis of reserve control techniques. The inference from the study is that the credit control program and other external shocks could have been responsible....

As a personal observation, I would emphasize that swings in the money and credit aggregates over a month, a quarter, or even longer should not be disturbing (and indeed may in some situations be desirable), provided there is understanding and confidence in our intentions over more significant periods of time. A major part of the rationale for reserve based techniques is to assure better monetary control over time. I believe, but cannot "prove", that the money supply in 1980 was held under closer control than if operating emphasis had remained on interest rates. But I hope 1980 was constructive in demonstrating that we do take the targets seriously, as a means both of communicating our intentions to the public and of discipling ourselves.

Chairman Volcker before the House Banking Committee, July 21, 1981.

The basic measure of transactions balances --"narrow money" M1 -- has risen relatively slowly, after adjusting for the effects of the one time shifts of funds into interest-bearing NOW accounts. ...To a degree that cannot be precisely measured, individuals and businesses spurred by high interest rates, appear to have intensified cash management practices designed to minimize the use of traditional transactional balances, tending to speed up the velocity relationship between M1 and GNP during early 1981. For example, to some limited degree, needs for "M1" transactional accounts may have been reduced by the growing popularity of money market funds -- not included in the definition of M1 -- which can be used as a substitute for demand deposits or NOW accounts.

At the same time, as shown in Table 1, the broader aggregates, M2 and M3, which do include money market funds and some other close money substitutes, have been rising at or above the upper end of the target ranges. You may recall that I suggested to the Committee in presenting the targets for 1981 that these broader aggregates might well be expected to grow toward the upper part of the ranges. This expectation was reinforced by the liberalization of interest ceilings of depository institutions by the Depository Institutions Deregulation Committee, a continued growth of money market funds, and potentially the availability of tax-exempt so-called

All-Savers Certificates at depository institutions, all of which could continue to result in some diversion of funds for market outlets into M2 and M3.

Chairman Volcker before the House Banking Committee, February 10, 1982

[Over 1978 to 1981, both M1 and M2] have been affected by institutional change. Relaxation of interest rate ceilings applicable to time deposits of depository institutions and the enormous growth of money market funds (both included in M2) tended to raise the trend of M2 over the period as individuals had incentives to lodge a larger proportion of their assets in these instruments. Assets in money market funds are not included in M1, but the enormous growth of those funds, providing virtually immediate availability of funds and check writing privileges, diverted some money away from checking accounts and depository institutions, which are included in M1. Given the technical and institutional changes bearing on M1 and its relative volatility, its movements need to be assessed in light of developments with respects to the other aggregates. Indeed a number of analysts attach greater weight to M2.

...

... The sharp increase in the money supply in January carried the level well above the average in the fourth quarter of 1981, the conventional base with a new target, and somewhat above the upper end of the range specified for 1981. A large increase in the money supply, accompanied by high interest rates, is unusual during a period of declining production and economic activity. Moreover, the composition of the increase in the money supply in the last three months is heavily concentrated in a rather small component of M1 -- NOW accounts, which are held by individuals. That increase in NOW accounts has been accompanied by reversal of earlier sharp declines of savings accounts -- another highly liquid asset -- and by declines in small denomination time deposits which provide a less liquid outlet for personal funds. Taken together, the evidence suggests some short term -- and potentially "self reversing" -- factors may be at work, inducing individuals to build up highly liquid balances at a time of economic and interest rate uncertainty.

Governor Gramley before the House Banking Committee March 3, 1982

Before 1974, it was possible to predict reasonably well the amount of M1 that the public would want to hold given the size of the economy and the level of interest rates. Since then, however, growth of M1 has been considerably slower, relative to the rise of nominal GNP, than indicated by historical relationships. More important, the period since 1974 has been characterized by a greater degree of short-run instability in money demand.

The relationship between the broader monetary aggregates and GNP has also changed in recent years because of financial innovations and regulatory changes.

I do not by any means conclude that recent instability of money demand requires a basic change in our procedures for implementing monetary policy....

However, several implications for monetary targeting can be drawn from experience in recent years. First, short run movements of the money stock have even less meaning than they once did as indicators of monetary policy. What happens to monetary growth over longer periods is what counts. Second, monetary targets should be expressed in rather wide ranges: the present ranges of 3 percentage points are certainly not too wide. Third, we need to continue to use multiple targets, rather than to focus on any single measure of money. Indeed somewhat greater weight may need to be given to the broader monetary aggregates in the future as a consequence of the relative instability of demand for M1. Finally, we need to stand ready to accept growth of money outside our target ranges -- or even to modify the ranges -- if changes in the public asset preferences warrant it.

Chairman Volcker before the Joint Eonomic Committee, June 15, 1982

The point I am making is that a large number of factors have impinged -- and in all likelihood will continue to impinge -- on the growth of the monetary aggregates, possibly in the process modifying the relationship of any particular measure of "money" to economic performance. The relationships have been good enough over a period time to justify a presumption of stability -- but I do believe we must also take into account a wide range of financial and nonfinancial information when assessing whether the growth of the aggregates is consistent with the policy intentions of the Federal Reserve. The hard truth is that there inevitably is a critical need for judgment in the conduct of monetary policy.

....

In summary, casting monetary policy directives in terms of the aggregates has been a useful discipline and also has been helpful in communicating to Congress, the markets, and the general public the intent and results of the Federal Reserve's actions. At the same time, we must retain some element of caution in their interpretation; the monetary targets convey a sense of simplicity that may not always be justified in a complex economic and financial environment. The fact that the economic significance of particular aggregates is constantly evolving in response to rapid changes in financial markets and practices is not universally appreciated. Consequently, the Federal Reserve is continually faced with difficult judgments about the implications for the economy.

Chairman Volcker before the Senate Banking Committee, July 20, 1982

In conducting monetary policy during [the first half of 1982] the Committee was sensitive to indications that the desire of individuals and others for liquidity was unusually high, apparently reflecting concerns and uncertainties about the business and financial situation. A reflection of that may be found in unusually large declines in of "velocity" over the period -- i.e. the ratio of measures of money to GNP...

More direct evidence of the desire for liquidity, or precautionary balances can be found in the behavior NOW accounts...

...

I believe it is timely for me to add that, in these circumstances, the Federal Reserve should not be expected to respond, and does not plan to respond, strongly to various bulges -- or for that matter "valleys" -- in monetary growth that seem likely to be temporary. As we have emphasized in the past, the data are subject to a good deal of statistical noise in any circumstances, and at times when the demands for money and liquidity may be exceptionally volatile, more than the usual caution is necessary in responding to "blips."